



ellipse

Venustaconcha ellipsiformis

Kingdom: Animalia
Division/Phylum: Mollusca
Class: Bivalvia

Features

The ellipse mussel has a small, solid, oval, compressed shell. The anterior end is rounded and the posterior is bluntly pointed. The ventral margin is straight to slightly curved. The shell usually is smooth with a few ridges or folds on the posterior half in older shells. The outside of the shell is brown, green, or greenish yellow with numerous dark green rays that become wavy on the posterior half of the shell. The inside of the white shell is iridescent toward the posterior end. The ellipse may attain a length up to three inches.

Natural History

The ellipse is found in small to medium streams in gravel or mixed sand and gravel. It is a threatened species in Iowa. Its distribution in Iowa is not well documented. Freshwater mussels have an elaborate reproductive system. During spawning, males release sperm into the water. The sperm are drawn inside the female's shell, where they fertilize eggs in her body. The fertilized eggs develop into larvae (glochidia) and are stored for a time in the female's gills. When the glochidia mature, the female generally expels them

into the water where they must attach as parasites to the gills or fins of fish. Larvae remain on the host fish for a period of weeks or months. Young mussels then detach from their host and drop to the bottom of the body of water. Host fish for this mussel are unknown. Mussels are filter-feeders, bringing in water and the organic matter it contains through the incurrent siphon, filtering the particles out, then sending the rest of the water away from the body through the excurrent siphon. Particles filtered include plankton and detritus. Mature mussels spend most of their lives, which range from 10 to 100 years, partially or wholly buried in the bottom substrate.

Habitats

interior rivers and streams

Iowa Status

threatened; native

Siltation and other unknown water quality impacts from changing land use have greatly impacted mussel populations. Populations of some fish species which served as hosts for mussels have declined.

Iowa Range

eastern two-thirds of Iowa excluding south-central counties

Bibliography

Iowa Department of Natural Resources. 2001.
Biodiversity of Iowa: Aquatic Habitats CD-ROM.